



Lessons at a Glance: K-2 NGSS in the Garden

	Kindergarten	1st Grade	2nd Grade
NGSS Performance Expectations	K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
Guiding Question for 8 Lesson Unit	What do plants need to grow and thrive?	How do the structures of plants help the plant grow and thrive?	How do seeds and pollen travel?
	1 Welcome to the Garden Classroom! Objective: Students introduce themselves, create group agreements, and then go on a scavenger hunt in order to begin to form a personal connection with the Garden Classroom.	Welcome to the Garden Classroom! Objective: Students introduce themselves, create group agreements, listen to a story about a rainbow, and then go on a search for different colors in order to begin to form a personal connection with the Garden Classroom.	Welcome to the Garden Classroom! Objective: Students introduce themselves, create group agreements, and then go on a seed-focused scavenger hunt in order to begin to form a personal connection with the Garden Classroom.
	2 Pick the Plant Students ask questions and look for patterns to begin engaging in argument from evidence about the characteristics of plants .	Discovering Plant Structures Students make observations of a model in order to construct explanations for how different structures (roots, stems and leaves) help plants survive and grow.	Seed Ya Later Students examine dispersal structures on diverse seeds in order to construct explanations based on evidence for how they think each seed travels .
	3 What Plants Need, Part I Students make observations of the effects of resource deprivation on plants in order to construct explanations about what plants need in order to grow .	Illustrating Plant Structures Students develop a model in order to construct explanations for how different structures (roots, stems, leaves) help the plant survive and grow.	Hitchhiker Seeds Students make observations of seeds that cling to fur in order to construct explanations for how seeds' structures allow them to stick to things and travel.
	4 What Plants Need, Part II Students develop a model in order to demonstrate that the sun, minerals from soil, water, and air cause seeds to grow .	Rootin' for Roots Students observe taproots and fibrous roots in order to construct explanations for how different root structures help plants survive and grow .	Seeds that Soar Students make observations of seeds that soar in order to create a physical model of a seed dispersal structure .



Lessons at a Glance: K-2 NGSS in the Garden

		Spring Lessons		
	5	Pet Plants Students obtain and communicate information about their plant in order to determine how it changes over time .	Designing Garden Stands Inspired by Nature Students design a solution to create a better garden stand based on their observations of the structures of roots .	Seed Engineers Students plan and carry out investigations based on different structures of samaras in order to design a solution that allows bean seeds to soar for as long a time as possible
	6	Food Factories Students engage in argument from evidence in order to determine the cause of holes in the leaves .	Stem Studies Students construct explanations about the different colors of celery stems in order to determine the function of stems .	From Flowers to Fruits Students construct explanations based on evidence in order to determine how pollinators contribute to the changes in flowers and help a plant reproduce .
	7	Setting Seeds in the Sun Students look for patterns of pest damage in their garden and define problems about pest issues, in order to plant their Pet Plants and protect them from animals in the garden that obtain their food from plants .	Learning About Leaves Students develop a model about the structures of leaves (size and shape) in order to determine how the leaves get what they need to make their own food .	Pollinator Power Students engage in argument from evidence in order to learn how flowers and pollinators work together in a system .
	8	Lettuce Eat Leaves Students develop a model in order to recognize patterns that demonstrate how animals, including humans, need plants to live and grow .	Making Our Own Plant Models Students develop a model in order to demonstrate their understanding of how roots, stems and leaves work together as a system to get the plant what it needs to survive and grow.	Designing a Pollinator Wand Students design solutions to create pollination wands based on the structures of, and systems between, flowers and pollinators .